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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/545,336	04/07/2000	David M. Tumey	06.2916.004	9586

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EXAMINER

HESELTIME, RYAN J

ART UNIT	PAPER NUMBER
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2623

DATE MAILED: 10/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/545,336	<b>Applicant(s)</b> TUMEY ET AL.	
	<b>Examiner</b> Ryan J Hesseltine	<b>Art Unit</b> 2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 28 June 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 28, 2004 has been entered.

### ***Response to Amendment***

2. The affidavit under 37 CFR 1.132 filed June 28, 2004 is insufficient to overcome the rejection of claims 1-11 based upon the 35 U.S.C. § 103(a) rejection of claims 1 and 2 as being unpatentable over Morinaga in view of Wang, claims 3-5 as being unpatentable over Lane, and claims 6-11 as being unpatentable over Lane in view of Piosenka as set forth in the last Office action because: independent claims 1-3 have been amended, rendering those rejections moot.

### ***Response to Arguments***

3. Applicant's arguments with respect to claims 1-11 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Objections***

4. Claims 13 and 14 are objected to because of the following informalities: in line 3, claim 13 states, "facial image capture during of a user during routine insertions of the smart card" (emphasis added). The examiner believes that the first occurrence of the word "during" is in error. Appropriate correction is required. In lines 2-3, claim 14 states, "biometric data identifying the individual comprises data corresponding to at least two facial images". It is

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unclear to which biometric data the applicant is referring. It has been assumed that the applicant is referring to the captured biometric data and not the prerecorded representation of biometric data identifying an individual, as recited in parent claim 3 at lines 8 and 9.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burger (USPN 6,219,439, newly cited) in view of Morinaga (USPN 6,137,685, previously cited).

7. Regarding claim 1, Burger discloses a non-invasive human user identification and verification system, comprising: a portable smart card 14; non-volatile storage media 22 for receiving and storing biometric data (Figure 1; column 5, line 24-40); a smart-card docking station 12 with a port 18 for receiving said smart card and communicating said biometric data therethrough (column 5, line 6-10); and a communications interface for transmitting said stored data from said docking station to a central processor 19 that is housed in a physical structure separate from said smart card, said central processor being capable of receiving and manipulating said data to produce an output signal for use in the identification and verification (authentication) of said human user (Figure 1; column 5, line 10-23). Burger does not disclose that a silicon-based video camera is embedded within said smart card for gathering facial image data or a digitizer integrated within said smart card for digitizing said facial image data.

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8. Morinaga discloses a portable electronic information device including a silicon-based (electronic) video camera (Figure 1, element 28) embedded within said smart card for gathering facial image data (column 5, line 38-43). Morinaga does not explicitly disclose a digitizer integrated within said smart card for digitizing said facial image data. The examiner takes Official Notice that digitizers for digitizing image data are extremely well known in the art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to embed a video camera (in place of Burger's fingerprint sensor 16 provided on the reader 12) within said smart card for gathering facial image data as taught by Morinaga and including a digitizer for digitizing said facial image data in order to photograph facial images and prepare an address table of photographed facial images, for example, to recognize a human user similar to Burger's authentication using fingerprints (column 5, line 38-43).

9. Regarding claim 2, Burger discloses a method for the identification and verification of a human user, comprising the steps of: capturing one or more first fingerprint images at a remote enrollment station and digitizing said first facial images for storage in a non-volatile media 22 within a portable smart card 14 (Figure 1; column 5, line 24-40); inserting said smart card into a docking port 12 (column 5, line 42-50); and capturing one or more second fingerprint images and transmitting said second facial images from the smart card inserted in said docking port to a central processor 19 that is housed in a physical structure separate from said smart card, said central processor being capable of receiving and comparing said first and second fingerprint images and producing a signal indicative of recognition or non-recognition of said human user (column 5, line 50-65). Morinaga discloses a portable electronic information device with an

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embedded video camera for capturing facial images (column 5, line 38-43), and digitizing facial images is well known in the art (see above discussion of claim 1).

10. Regarding claim 3, Burger discloses a human user identification and verification system, comprising: a portable personal identification device (smart card) 14; a communications port 12 adapted to receive information from the personal identification device, the communications port being external to the personal identification device (Figure 1; column 5, line 6-23); wherein the personal identification device 14 comprises: a prerecorded representation 22 of biometric data identifying an individual (column 5, line 24-40); and a communications interface (inherent) configured to transmit information to the communications port 12, the information including the prerecorded representation of biometric data identifying the individual (column 5, line 42-50); and a processor 19 communicatively coupled to the communications port and housed in a physical structure separate from said personal identification device 12, the processor 19 being configured to process the information transmitted from the personal identification device to the communications port and produce a signal indicative of whether the biometric data captured by the sensor matches the individual identified by the prerecorded representation of biometric data (column 5, line 13-23, line 50-65). Morinaga discloses a portable electronic information device including a sensor configured to capture biometric (facial) data (column 5, line 38-43). It would have been obvious to one of ordinary skill in the art at the time the invention was made to transmit both the prerecorded representation of biometric data identifying the individual and the biometric data captured by the sensor as taught by Morinaga in order to photograph facial images and prepare an address table of photographed facial images, for example, to recognize a human user similar to Burger's authentication using fingerprints (column 5, line 38-43).

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11. Regarding claim 4, Burger discloses that the personal identification device is a smart card (column 5, line 24-27).

12. Regarding claim 5, Burger discloses that the communications port 12 is a docking station (Figure 1; column 5, line 6-23).

13. Regarding claims 6 and 7, Morinaga discloses that the biometric data identifying the individual comprises facial image data and wherein the sensor is an image-capturing device (column 5, line 38-43).

14. Regarding claim 8, Burger discloses that the personal identification device further comprises machine-readable storage media 22 for storing the prerecorded representation of biometric data identifying an individual (column 5, line 24-40).

15. Regarding claim 9, Burger does not explicitly disclose that the storage media 22 comprises non-volatile memory. The examiner takes Official Notice that non-volatile memory is well known in the art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use non-volatile memory as the storage media in order to ensure that the prerecorded representation of biometric data identifying an individual is not easily lost.

16. Regarding claim 10, Morinaga discloses that the prerecorded representation of biometric data identifying an individual comprises a plurality of facial images (face pictures) of the individual (column 5, line 38-43).

17. Regarding claim 11, Burger discloses that the personal identification device is configured to acquire and store data representing a plurality of biometric characteristics (fingerprint, retina scan, voice identification, saliva, DNA etc.) of a person (column 4, line 31-33).

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18. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Burger in view of Morinaga as applied to claim 10 above, and further in view of Pare, Jr. et al. (USPN 5,802,199, newly cited, hereafter Pare).

19. Regarding claim 12, neither Burger nor Morinaga disclose that the personal identification device is configured to automatically remove underutilized prerecorded representations of facial images, but such a concept is well known in the art as a way of saving storage space. Pare discloses a use sensitive identification system wherein a local computer 34 stores registered biometric samples and personal identification codes of users and wherein the local computer an individual used prior to relocating will eventually purge from its records the biometric sample and personal identification code of the relocated individual (column 11, line 26-50). It would have been obvious to one of ordinary skill in the art at the time the invention was made to automatically remove underutilized prerecorded representations of facial images as taught by Pare in order to free up database space and speed up biometric comparisons (column 11, line 45-50).

20. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Burger in view of Morinaga as applied to claim 5 above, and further in view of Tal (USPN 4,975,969, cited on applicant's IDS).

21. Regarding claim 13, neither Burger nor Morinaga disclose that the docking station and sensor on the smart card are positioned to facilitate a good quality facial image capture of a user during routine insertions of the smart card in the docking station. Tal discloses a method and apparatus for uniquely identifying individuals wherein, during a transaction, a user 80 inserts a



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card 85 containing facial parameter identification information into slot 87 of a card accepting and reading means 70 (Figure 3; column 7, line 48-51). The slot 87 is located at a height of approximately 48 inches from the ground, while a frontal camera 60 is located slightly above the slot so that while a user focuses his or her eyes on the slot to insert the card 85, a good facial image will be captured (Figure 3; column 7, line 51-65). It would have been obvious to one of ordinary skill in the art at the time the invention was made to position the docking station and sensor on the smart card as taught by Tal in order to facilitate good quality facial image capture of a user during routine insertions of the smart card in the docking station since some dexterity is required to insert the card into the slot so the user must look towards the slot during insertion (column 7, line 57-65).

22. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Burger in view of Morinaga as applied to claim 3 above, and further in view of Turk et al. (USPN 5,164,992, cited on applicant's IDS, hereafter Turk).

23. Regarding claim 14, Morinaga discloses that the biometric data identifying an individual comprises data corresponding to at least two facial images (face pictures), wherein the sensor is an image-capturing device (column 5, line 38-43), but does not disclose that the processor is configured to compare the two facial images to detect motion. Turk discloses a face recognition system including a motion detection module 6, which processes a sequence of images to identify regions of the recorded scene that contain motion (column 3, line 17-36). It would have been obvious to one of ordinary skill in the art at the time the invention was made to compare two facial images to detect motion as taught by Turk in order to identify a selected portion of an

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image by detecting motion including a locator module for locating the portion of the image corresponding to the face of the person detected (column 1, line 65-column 2, line 4).

***Conclusion***

24. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. JP 04-156185 to Tani et al. discloses a card-mount camera incorporating an image pickup element. EP 0 758 776 to Massie discloses an authorization system characterized by an IC card incorporating camera means, data processing means, and memory means.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan J Hesseltine whose telephone number is 703-306-4069. The examiner can normally be reached on Monday - Friday, 8:30 AM - 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on 703-308-6604. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ryan J. Hesseltine  
September 29, 2004

JINGGEWU  
PRIMARY EXAMINER

